Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-36**

Contractor: _____

Sample Date: 4/14/25

Concrete Grade: **P1M, 4000HP**

Dates Test Represents: 4/15/2025 through 4/21/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	870	5.32	2.62	28.3
IA	71-47	Presque Isle	1000	6.12	2.62	32.6
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1
		Total Wt	**3070**	**18.70**		100.0

<----- Verify this number is 100%

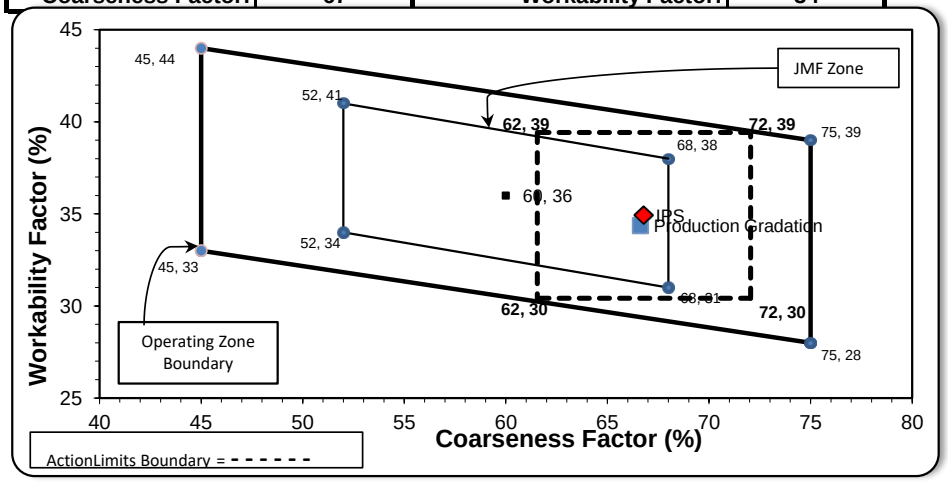
Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	98.5	100.0	100.0	99.6	0.4	0.4
1"	39.3	100.0	100.0	82.8	16.8	17.2
3/4"	6.0	99.2	100.0	73.1	9.7	26.9
1/2"	1.4	81.3	100.0	66.0	7.1	34.0
3/8"	1.1	51.8	100.0	56.3	9.7	43.7
#4	1.1	7.1	98.0	40.9	15.3	59.1
#8	1.0	2.4	85.2	34.4	6.6	65.6
#16	1.0	1.9	69.0	27.9	6.5	72.1
#30	0.9	1.8	47.5	19.4	8.5	80.6
#50	0.9	1.7	20.5	8.8	10.6	91.2
#100	0.9	1.6	3.4	2.1	6.7	97.9
LBW	0.7	1.4	0.4	0.8	1.3	99.2

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	67	Workability Factor:	34



Intial Production Sample (IPS)

Coarseness Factor:	67
Workability Factor:	35

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
3/4"	72.1	12.9	27.9
1/2"	64.5	7.6	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Contractor: _____

Sample Date: 4/14/25

Concrete Grade: **P1M, 4000HP**

Dates Test Represents: 4/15/2025 through 4/21/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	870	5.32	2.62	28.3
IA	71-47	Presque Isle	1000	6.12	2.62	32.6
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
		Total Wt	**3070**	**18.70**		100.0

<----- Verify this number is 100%

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	98.5	100.0	100.0	99.6	0.4	0.4
1"	39.3	100.0	100.0	82.8	16.8	17.2
3/4"	6.0	99.2	100.0	73.1	9.7	26.9
1/2"	1.4	81.3	100.0	66.0	7.1	34.0
3/8"	1.1	51.8	100.0	56.3	9.7	43.7
#4	1.1	7.1	98.9	41.3	15.0	58.7
#8	1.0	2.4	81.4	32.9	8.4	67.1
#16	1.0	1.9	66.2	26.8	6.1	73.2
#30	0.9	1.8	50.2	20.5	6.3	79.5
#50	0.9	1.7	25.0	10.6	9.9	89.4
#100	0.9	1.6	4.6	2.6	8.0	97.4
LBW	0.7	1.4	0.8	1.0	1.6	99.0

*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

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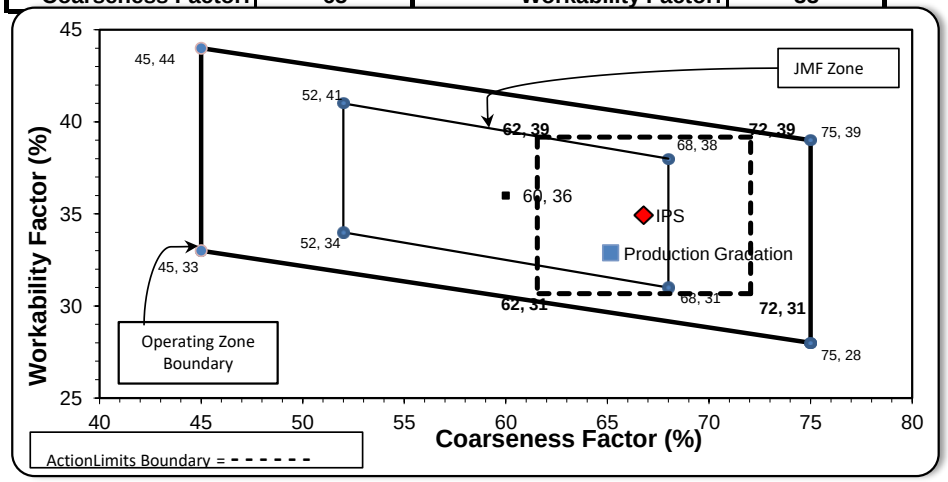
Production Gradation ○ Batch Plant Gradations ◉ Aggregate SupplierGradations

Coarseness Factor:	65	Workability Factor:	33



Intial Production Sample (IPS)

Coarseness Factor:	67
Workability Factor:	35

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
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#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

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